

injecting the turned semi-solidified slurry into molding plates opening or closing in the horizontal direction.

25. (Twice Amended) An injection molding apparatus for a light metal alloy, comprising:

- a chamber;
- an extrusion screw located substantially vertically and provided rotationally inside said chamber, wherein the extrusion screw is mounted for linear movement in a substantially vertical direction, to extrude the molten metal of the semi-solidified slurry;
- a cooling unit for cooling a light metal material in said chamber so as to be formed into a molten metal or semi-solidified slurry;
- a connection member having a first internal channel substantially in a vertical direction and a second internal channel extending horizontally from the lower end of the first channel, said connection member being connected to a discharge port of said chamber;
- a nozzle connected at the discharge end of said connection member; and
- a clamping device for injection molding the molten metal or the semi-solidified slurry discharged from said nozzle, wherein said clamping device is adapted to open or close a movable plate relative to a stationary plate in a horizontal direction.--

#### REMARKS

Favorable reconsideration of the present application is respectfully requested.

Claims 2-4 and 6-25 are active in the application.

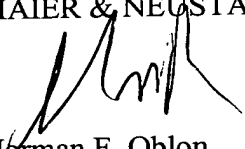
Applicants wish to thank Examiner Tran for the courtesy of an interview on July 26, 2002, at which time the outstanding rejections were discussed, as were possible claim amendments. In particular, Applicants argued that there is no description of axial movement

for the screw d3 of JP '874. The Examiner replied that the phrase "moving the extrusion screw in the axial direction thereof" was not sufficiently clear to exclude rotation of a screw about its axis. On the other hand, the Examiner indicated that a recitation of "moving the extrusion screw linearly in a substantially vertical direction" would clearly distinguish over the art of record. All of the claims now recite this limitation (or, in the case of Claim 25, that "the extrusion screw is mounted for linear movement in a substantially vertical direction"). The outstanding rejections are therefore believed to be moot.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early Notice of Allowability.

Respectfully submitted,

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IN THE CLAIMS

24. (Three Times Amended) A method of injection molding a light metal alloy comprising the steps of:

cooling a molten metal under shearing by an extrusion screw into a semi-solidified slurry in a substantially vertical chamber;

discharging the semi-solidified slurry from a discharge port at the lower end of the chamber by moving the extrusion screw linearly in a substantially vertical [the axial] direction [thereof];

turning the semi-solidified slurry in the horizontal direction; and

injecting the turned semi-solidified slurry into molding plates opening or closing in the horizontal direction.

25. (Twice Amended) An injection molding apparatus for a light metal alloy, comprising:

a chamber;

an extrusion screw located substantially vertically and provided rotationally inside said chamber, wherein the extrusion screw is mounted for linear movement in [the axial] a substantially vertical direction [thereof], to extrude the molten metal of the semi-solidified slurry;

a cooling unit for cooling a light metal material in said chamber so as to be formed into a molten metal or semi-solidified slurry;

a connection member having a first internal channel substantially in a vertical direction and a second internal channel extending horizontally from the lower end of the first channel, said connection member being connected to a discharge port of said chamber;

a nozzle connected at the discharge end of said connection member; and

a clamping device for injection molding the molten metal or the semi-solidified slurry discharged from said nozzle, wherein said clamping device is adapted to open or close a movable plate relative to a stationary plate in a horizontal direction.--